

# Utah Seatbelt Use Among High School Students

## 2006 Seatbelt Observation Results



# Introduction

Motor vehicle crashes are the leading cause of death for teens in Utah. On average, motor vehicle crashes account for 40 deaths, 330 hospitalizations, and 5,400 emergency department (ED) visits a year for Utah residents ages 15-19 years. Motor vehicle crash death rates are highest in the 15-19 and 70+ age groups. Motor vehicle crash hospitalization and ED visit rates are highest in the 15-19 age group. Hospital and ED charges for 15-19 year-old motor vehicle crash victims added up to \$13 million in Utah for the treatment of injuries in 2005.<sup>1</sup>



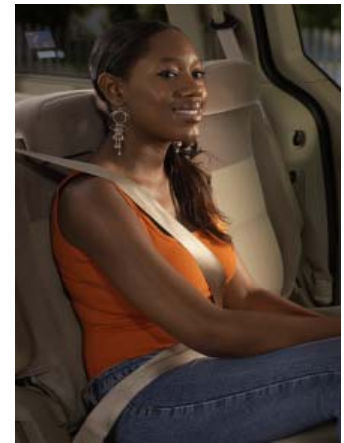
Teen drivers represented 7% of the licensed drivers in Utah in 2005, yet they were involved in a disproportionate percent of crashes; 27% of all motor vehicle crashes and 18% of all fatal crashes. In 2005 in Utah, teenage drivers were involved in 14,701 motor vehicle crashes which resulted in 9,711 injured persons, and 53 fatalities.<sup>2</sup>

Nationally, in terms of crashes per mile driven, teens have a crash rate almost twice that of 20-24



year-olds, almost 3 times that of 25-29 year-olds, and more than 4 times that of 30-69 year olds.<sup>3</sup> Within the 16-19 year age range, the youngest drivers have the highest risk. The crash rate for 16-year-olds is much higher than that even for 17-year-olds and is almost 9 times greater than that of the general population of drivers.<sup>4</sup>

The use of seatbelts reduces the risk of fatal injury to front seat passenger car occupants by 45% and the risk of moderate-to-critical injury by 50%. For truck occupants, seatbelts reduce the risk of fatal injury by 60% and moderate-to-critical injury by 65%.<sup>5</sup> Some reasons teenagers give for not wearing seatbelts include forgetting, uncool, peer pressure, uncomfortable, traveling short distance, and feeling of invincibility.<sup>6,7</sup> In fatal teen driver crashes seatbelt use is lower in high-risk situations, such as driving under the influence of alcohol, nighttime driving, having multiple teenaged passengers, and when the driver is male or unlicensed.<sup>8</sup>



Wearing a seatbelt is one of the best ways to decrease injuries and deaths in a motor vehicle crash, yet in 2001-2005 only 37% of vehicle occupants 15-19 years old killed in traffic crashes in Utah were restrained.<sup>2,9</sup> If during 2001-2005, all vehicle occupants 15-19 years old had worn seatbelts, 52 additional lives could have been saved in Utah.<sup>10</sup>



## Methods

In 2006, the Utah Department of Health and all 12 local health districts (LHD) in Utah, began a coordinated statewide campaign to increase teen seatbelt use in motor vehicles. As part of this campaign, each LHD conducted seatbelt observations at sites throughout the state to estimate teen seatbelt usage rates.

Seatbelt observations were conducted in target communities within each LHD. Sites included entrances/exits to high school parking lots before and after school, high school parking lots before and after school events, and other community locations where teens frequented.

Observations were only completed on motor vehicle occupants estimated to be ages 15-19 years. Information was collected on the seating position in the vehicle of the occupant (driver, front seat passenger, back seat passenger), gender (male or female), and restrained by seatbelt (yes or no). No contact was made with vehicle occupants.

Observation results were weighted to the teen population of each LHD to produce state estimates.

## Results

### Overall Seatbelt Use

A total of 13,197 teens were observed in 2006. Overall seatbelt use was 67.0%.

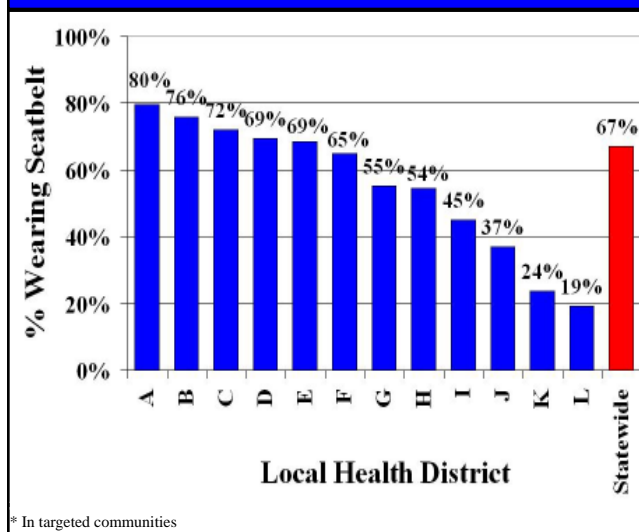
### Seatbelt Use by Local Health District

Figure 1 shows overall seatbelt use of teens in the targeted communities by LHD. Overall seatbelt use varied widely by LHD from a high of 79.7% to a low of 19.3%. (Note: Specific health districts are not identifiable.)

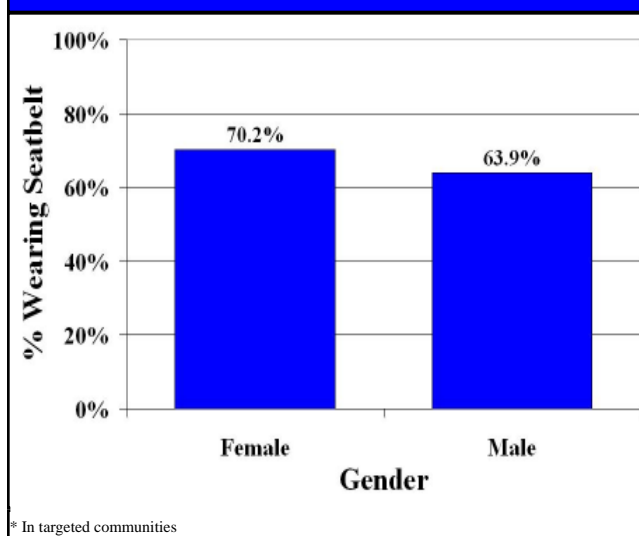
### Gender

Females and males were almost equally observed with slightly more males observed than females (50.6% to 49.4%). Females had higher rates of seatbelt use in every LHD. Figure 2 shows that 70.2% of female teens wore their seatbelt compared to 63.9% of male teens.

**Figure 1: Percentage of Teen Seatbelt Use by Local Health District in Utah,\* 2006**



**Figure 2: Percentage of Teen Seatbelt Use by Gender in Utah,\* 2006**



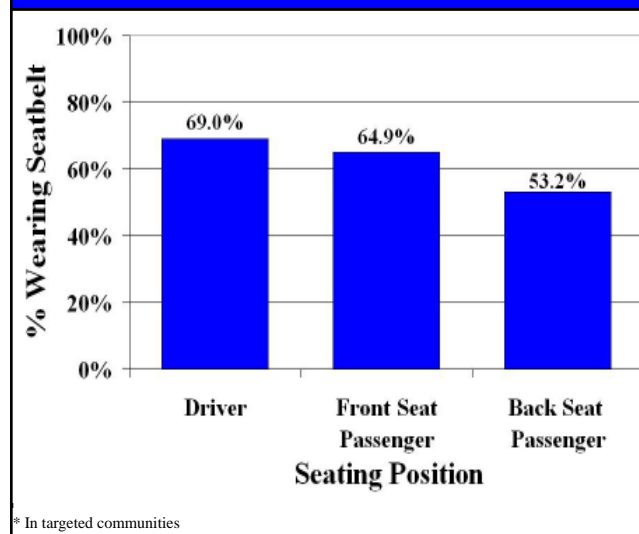
### Seating Position

8,336 (63.2%) of the teens observed were driving, 4,333 (32.8%) were front seat passengers, and 528 (4.0%) were back seat passengers. Figure 3 shows that drivers were the most likely to wear their seatbelt (69.0%), followed by front seat passengers (64.9%), and



back seat passengers were the least likely to wear a seatbelt (53.2%). Females had higher seatbelt use than males in every seating position.

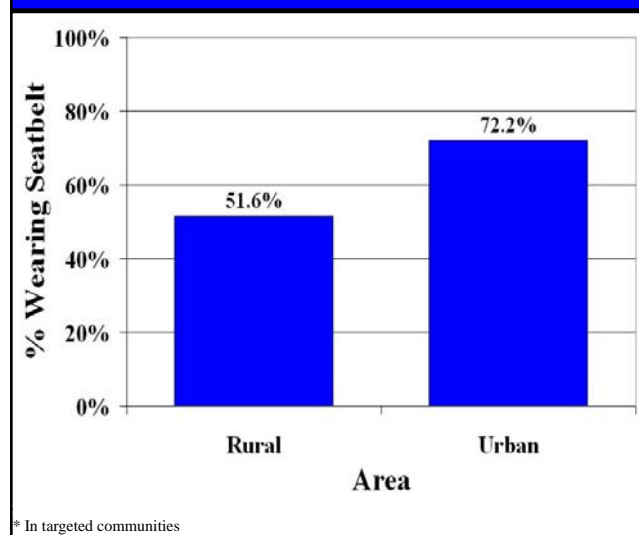
**Figure 3: Percentage of Teen Seatbelt Use by Seating Position in Utah,\* 2006**



## Rural vs. Urban

There were 4,076 (30.9%) teens observed in rural or frontier counties (0-100 persons per square mile). Urban counties (>100 persons per square mile) accounted for 9,121 (69.1%) of the teens that were observed. Figure 4 shows that overall seatbelt use was higher in urban areas (72.2%)

**Figure 4: Percentage of Teen Seatbelt Use by Rural and Urban in Utah,\* 2006**



than rural areas (51.6%). Urban areas had higher seatbelt use than rural areas for both genders and all seating positions.

Urban female drivers had the highest seatbelt use (77.9%) and rural female back seat passengers had the lowest seatbelt use (38.5%).

## Conclusion

With only 67.0% of observed Utah teens using seatbelts, the teen seatbelt use rate is much lower than the state seatbelt use rate of 88.6%.<sup>11</sup> Clearly increased efforts are needed to raise teen seatbelt use. Increased seatbelt use can reduce the leading cause of death to teens.

## References

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7. National Highway Traffic Safety Administration. *Increasing teen safety belt use: a program and literature review*. DOT HS 809 899, September 2005.
8. McCart AT, Northrup VS. Factors related to seat belt use among fatally injured teenage drivers. *J Safety Res* 2004;35:29-38.
9. Utah Department of Public Safety, Highway Safety Office. *Utah Crash Summary 2000, 2001, 2002, 2003, 2004*.
10. This number was calculated based on the following data: a) there were 97 deaths to 15-19 year-old motor vehicle occupants who were not restrained in Utah during 2000-2005 [Utah Crash Summary]; b) 43% of occupant deaths involved passenger cars and 57% involved trucks [Utah Crash Summary]; c) 45% of car occupants and 60% of truck occupants would have survived if they were restrained [NHTSA].
11. Utah Department of Public Safety, Highway Safety Office. *Utah's Safety Belt Observational Survey: July 2006 Report*.

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